

In the Claims:

1. (Previously Presented) A biodegradable sulfate composition comprising sulfates of an alkyl branched primary alcohol composition having from 8 to 36 carbon atoms, wherein said alcohol composition has an average number of branches per molecule of at least 0.7, less than 0.5 atom % of quaternary carbon atoms, and said branching comprises methyl and ethyl branches and 5% to 30% of the number of branches are ethyl branches.
2. (Original) The biodegradable sulfate composition of claim 1, wherein the average number of branches per chain ranges from 1.5 to 2.3.
3. (Original) The biodegradable sulfate composition of claim 1, wherein said alcohol composition contains less than 5% linear alcohols.
4. (Previously Presented) The biodegradable sulfate composition of claim 3, wherein said alcohol composition contains less than 3% linear alcohols.
5. (Original) The biodegradable sulfate composition of claim 1, wherein from 5-25% of the number of branches are on the C<sub>2</sub> atoms of the alcohol composition.
6. (Original) The biodegradable sulfate composition of claim 5, wherein from 10-20% of the number of branches are on the C<sub>2</sub> atoms of the alcohol composition.
7. (Original) The biodegradable sulfate composition of claim 1, wherein from 10-50% of the number of branches are on the C<sub>3</sub> atoms of the alcohol composition.
8. (Original) The biodegradable sulfate composition of claim 2, wherein from 15-30% of the number of branches are on the C<sub>3</sub> atoms of the alcohol composition.
9. (Original) The biodegradable sulfate composition of claim 8, wherein at least 40% of the branches in the alcohol are methyl branches.
10. (Original) The biodegradable sulfate composition of claim 9, wherein at least 50% of the branches are methyl branches.
- Claim 11 (Canceled).
12. (Previously Presented) The biodegradable sulfate composition of claim 1 wherein from 10% to 20% of the number of branches are ethyl branches.
- Claims 13-69 (Canceled).

70. (Previously Presented) A branched primary alcohol composition having 8 to 36 carbon atoms, an average number of branched per molecule chain ranging from 0.7 to 2.1, less than 0.5 atom % of quaternary carbon atoms, and wherein less than 5% of the alcohol molecules in the composition are linear alcohols.

Claim 71 (Canceled).

72. (Previously Presented) The composition of claim 70, comprising a sulfate of the alcohol composition.

73. (Previously Presented) The composition of claim 70, comprising an ethoxysulfate of the alcohol composition.

Claim 74 (Canceled).

75. (Previously Presented) The composition of claim 70 having an average number of branches per molecule ranging from 1.3 to 2.1.

76. (Previously Presented) The composition of claim 70, wherein the average chain length ranges from 11 to 19.

77. (Previously Presented) A biodegradable branched primary alcohol composition having from 8 to 36 carbon atoms, an average number of branches of at least 0.7, and wherein from 5-25% of the branching is at the C2 position relative to the hydroxyl carbon atom, and from 10% to 50% of the branches are located at the C3 position.

78. (Previously Presented) The composition of claim 77, having a carbon number ranging from 11 to 19.

79. (Previously Presented) The composition of claim 78, having an average number of branches ranging from 0.7 to 2.1.

80. (Previously Presented) The composition of claim 79, having less than 0.5 atom % quaternary carbon atoms.

81. (Previously Presented) The composition of claim 77, wherein less than 5% of the alcohol molecules are linear.

82. (Previously Presented) The composition of claim 77, comprising a sulfate of the composition.

83. (Previously Presented) The composition of claim 77, comprising an ethoxysulfate of the composition.

84. (Previously Presented) The biodegradable sulfate composition of claim 1 wherein said alcohol composition contains branching at the C<sub>2</sub> and C<sub>3</sub> carbon positions.
85. (Previously Presented) A biodegradable sulfate composition comprising sulfates of an alkyl branched primary alcohol composition having from 8 to 36 carbon atoms, wherein said alcohol composition has an average number of branches per molecule of at least 0.7, less than 0.5 atom % of quaternary carbon atoms, and said branching comprises methyl and ethyl branches and 5% to 25% of the number of branches are on the C<sub>2</sub> atoms of the alcohol composition.
86. (Previously Presented) The biodegradable sulfate composition of claim 85 wherein said alcohol composition contains less than 5% of linear alcohols.
87. (Previously Presented) The biodegradable sulfate composition of claim 86 wherein said alcohol composition contains less than 3% linear alcohols.
88. (Previously Presented) The biodegradable sulfate composition of claim 85 wherein from 10 to 50% of the number of branches are on the C<sub>3</sub> atoms of the alcohol composition.
89. (Previously Presented) The biodegradable sulfate composition of claim 88 wherein from 15 to 30% of the number of branches are on the C<sub>3</sub> atoms of the alcohol composition.
90. (Previously Presented) The biodegradable sulfate composition of claim 85 wherein at least 40% of the branches in the alcohol are methyl branches.
91. (Previously Presented) The biodegradable sulfate composition of claim 85 wherein 5% to 30% of the branches are ethyl branches.
92. (Previously Presented) The biodegradable sulfate composition of claim 85 wherein said alcohol composition contains at least 5% of isopropyl terminal type of branching.
93. (Previously Presented) The biodegradable sulfate composition of claim 85 wherein said alcohol composition is obtained by skeletally isomerizing olefins under skeletal isomerization conditions.
94. (Previously Presented) A branched primary alcohol composition having from 8 to 36 carbon atoms, an average number of branches per molecule of at least 0.7, less than 0.5 atom % of quaternary carbon atoms, and said branching comprises methyl and ethyl branches and 5% to 25% of the number of branches are on the C<sub>2</sub> atoms of the alcohol composition.
95. (Previously Presented) The alcohol composition of claim 94 wherein said alcohol composition contains less than 5% of linear alcohols.

96. (Previously Presented) The alcohol composition of claim 95 wherein said alcohol composition contains less than 3% linear alcohols.
97. (Previously Presented) The alcohol composition of claim 94 wherein from 10 to 50% of the number of branches are on the C<sub>3</sub> atoms of the alcohol composition.
98. (Previously Presented) The alcohol composition of claim 97 wherein from 15 to 30% of the number of branches are on the C<sub>3</sub> atoms of the alcohol composition.
99. (Previously Presented) The alcohol composition of claim 94 wherein at least 40% of the branches in the alcohol are methyl branches.
100. (Previously Presented) The alcohol composition of claim 94 wherein 5% to 30% of the branches are ethyl branches.
101. (Previously Presented) The alcohol composition of claim 94 wherein said alcohol composition contains at least 5% of isopropyl terminal type of branching.
102. (Previously Presented) The alcohol composition of claim 94 wherein said alcohol composition is obtained by skeletally isomerizing olefins under skeletal isomerization conditions.